4.2.2.6 Biological Resources

Preferred Alternative: No Action Alternative

The missions described in Section 2.2.2 would continue at NTS. This would result in no changes to current conditions of biological resources at NTS as described in Section 3.3.6.

Consolidation Alternative

Consolidated storage facilities would be located in modified P-Tunnel drifts or in new facilities in the Frenchman Flat area.

Modify Existing Tunnel Drifts and Construct New Material Handling Building at the P-Tunnel

Terrestrial Resources. If consolidated storage facilities were located within the modified P-Tunnel area, existing and new facilities would be required at both the modified P-Tunnel site itself and the Area 12 Camp. Modification of existing structures would have minimal impact on terrestrial resources. New construction would also have minimal impact, because construction would take place within presently developed areas. The material handling facility, which is the principal structure to be built, would be located in an area on which excavated material from the modified P-Tunnel was deposited. Foundation preparation would require some additional soil, which would be imported from other as-yet-unspecified areas of NTS. If this material was excavated from a new borrow pit, terrestrial resources at the location could be affected. Construction and operation could result in disturbance to wildlife by noise and human activity, but impacts to wildlife would be minimal because animals would have already adjusted to ongoing activities.

Wetlands. Construction and operation of consolidated storage facilities would not affect wetlands since there are no wetlands in the vicinity of the modified P-Tunnel.

Aquatic Resources. Construction and operation of consolidated storage facilities would not affect aquatic resources since there are no permanent surface water bodies in the vicinity of the modified P-Tunnel.

Threatened and Endangered Species. Construction and operation of consolidated storage facilities would have minimal effect on threatened and endangered species in the modified P-Tunnel area since the habitat is already disturbed. The range of the federally listed threatened desert tortoise does not extend to the modified P-Tunnel area. Site surveys would be performed as necessary to determine the presence of special status species. Consultation with USFWS and State agencies would be conducted at the sit-specific levels, as appropriate.

Construct New Plutonium Storage Facility

Under this alternative, Pu would be consolidated in a new storage facility located in the Frenchman Flat area of NTS. Impacts to terrestrial resources, wetlands, aquatic resources, and threatened and endangered species are discussed below.

Terrestrial Resources. Construction of the consolidated Pu storage facility at NTS would result in the disturbance of 58.5 ha (144 acres) of terrestrial resources, or less than 0.02 percent of NTS. This includes areas on which facilities would be constructed, as well as areas used for construction laydown. Vegetative cover within the proposed project area, which is primarily creosote bush (Figure 3.3.6–1), would be destroyed during land-clearing operations. Creosote bush communities are well represented on NTS.

Construction of the Pu storage facility would affect animal populations. Less-mobile animals, such as reptiles and small mammals, within the project area would not be expected to survive. Construction activities and noise would cause larger mammals and birds in the construction and adjacent areas to move to similar habitat nearby.

If the area to which they moved was below its carrying capacity, these animals would be expected to survive. However, if the area was already supporting the maximum number of individuals, the additional animals would compete for limited resources, which could lead to habitat degradation and eventual loss of the excess population. Nests and young animals living within the proposed site may not survive. The site would be surveyed as necessary for the nests of migrating birds prior to construction. Areas disturbed by construction, but not occupied by facility structures, would be of minimal value to wildlife because of the difficulty in establishing vegetative cover in a desert environment.

Activities associated with operation, such as noise and human presence, could affect wildlife living immediately adjacent to the facility. These disturbances may cause some species to move from the area. Disturbance to wildlife living adjacent to the facility would be minimized by preventing workers from entering undisturbed areas. Impacts to vegetation from salt drift would not occur since dry cooling systems would be used.

Wetlands. Construction and operation of the Pu storage facility would not affect wetlands because there are no wetlands near the assumed facility location.

Aquatic Resources. Construction and operation of the Pu storage facility would not affect aquatic resources because there are no permanent surface water bodies near the assumed facility location.

Threatened and Endangered Species. The desert tortoise is a federally listed threatened species that could be affected by construction of the Pu storage facility at NTS. Construction activities such as land-clearing operations, trenches, and excavation could pose a threat to any tortoises residing within the disturbed area. An increase in vehicular traffic is an additional hazard to the tortoise. Measures from previous projects at NTS designed to avoid impacts to the desert tortoise have been implemented as a result of a Biological Opinion issued by the USFWS (NT DOI 1992b:8-15). Recommended mitigation measures included providing worker training; putting restrictions on vehicle speeds and off-road movement; conducting clearance surveys prior to surface disturbance; approving stop work authority if tortoises are found within work areas; removing tortoises from roadways and work areas; placing permanent and temporary tortoise-proof fencing around trenches, landfills, and treatment ponds; inspecting trenches; and having biologists present when heavy equipment is in use. The USFWS would be consulted, and similar USFWS recommendations would be implemented should NTS be selected as the location for the Pu storage facility.

[Text deleted.] Any listed plant species located within the construction area could be lost or affected during land-clearing activities. Preactivity surveys would be conducted as appropriate prior to construction to determine the presence of these species in the area to be disturbed. Consultation with USFWS and State agencies would be conducted at the site-specific levels, as appropriate.

During facility operation, vehicular traffic would pose a hazard to the desert tortoise similar to the hazard caused by current traffic. Extensive measures, including personnel training, are presently being taken to ensure that drivers on NTS avoid the tortoise. [Text deleted.] Groundwater levels in Devils Hole are not expected to change due to operation of the Pu storage facility (Section 4.2.2.4), so impacts to the Devils Hole pupfish are not expected. Similarly, other rare endemic aquatic species found in the Ash Meadows area would not be affected.

Collocation Alternative

Under this alternative, consolidated Pu would be stored with HEU inventories in existing and new facilities in the modified P-Tunnel area or in a new collocated Pu storage facility sited at the same location as the consolidated storage facility.

Modify Existing Tunnel Drifts and Construct New Material Handling Building at the P-Tunnel

Impacts to biological resources from placing collocated storage facilities in modified P-Tunnel drifts would be similar to those described previously for consolidated storage facilities. This is because both facilities are of a similar size and both would be placed within developed portions of the P-Tunnel site and Area 12 Camp.

Construct New Plutonium and Highly Enriched Uranium Storage Facilities

Construction and operation of a collocated storage facility at the Frenchman Flat area of NTS would have similar, but somewhat greater effects on biological resources as those described for the consolidated storage facility. Construction of the collocated storage alternative would disturb 89.5 ha (221 acres) of habitat.

Subalternative Not Including Strategic Reserve and Weapons Research and Development Materials

The exclusion of strategic reserve and weapons R&D materials would have almost the same effects to the Consolidation Alternative and the Collocation Alternative. The size of facility would be similar and would not result in the reduction of disturbed habitat and/or fewer facility modifications and thus lessen the potential impacts to biological resources would be similar. [Text deleted.]